

008573 USA/AGS/IBSS/HM
Application No: 10/726,008
Page 2 of 18

IN THE CLAIMS

Please substitute the following listing of claims for the previous listing of claims.

1. (Currently amended) A magnet assembly for a plasma process chamber comprising a wall, the magnet assembly comprising:
 - (a) a hollow collar comprising a radially internal and external surface, and a cross-section that is absent seams, the collar having a gap extending from about the radially internal surface to about the external surface, the gap defining opposing faces, at least one face having an open end face, and the collar sized to be capable of diametrically expanding and to snap fit a wall of the process chamber so that the radially internal surface directly contacts the process chamber wall;
 - (b) a cap to seal the at least one open end face; and
 - (c) a plurality of magnets in the hollow collar, the magnets being insertable through the open end face.
2. (Canceled)
3. (Currently amended) A magnet assembly according to claim 1 wherein the hollow collar is shaped to fit into a corresponding groove on the [[a]] wall of the process chamber.
4. (Original) A magnet assembly according to claim 3 further comprising a retaining ring to retain the hollow collar in the groove of the wall of the process chamber.
5. (Currently amended) A magnet assembly for according to claim 1 further comprising a key on the an external surface of the hollow collar to couple to a corresponding slot on a the surface of [[a]] the wall of the process chamber.

008573 USA/AGS/IBSS/HM
Application No: 10/726,008
Page 4 of 18

13. (Original) A plasma process chamber comprising at least one wall having the magnet assembly of claim 1 fitted thereon, the process chamber further comprising:

- (i) a substrate support;
- (ii) a gas supply to provide process gas;
- (iii) a gas energizer to energize the process gas; and
- (iv) an exhaust to exhaust the process gas.

14. (Original) A chamber according to claim 13 wherein the wall of the chamber comprises a groove to receive the magnet assembly.

15. (Canceled)

16. (Original) A chamber according to claim 1 comprising a pair of concentric walls that each comprise a magnet assembly.

17. (Currently amended) A chamber according to claim 16 wherein in one of the magnet assemblies, the plurality of magnets are positioned in the hollow collar such that the magnetic axes of the magnets are oriented perpendicular to the wall of the process chamber; and wherein

in the other magnet assembly, the plurality of magnets are positioned such that a first set of magnets have their magnetic axes oriented in one direction, and a the second set of magnets have their magnetic axes oriented in the opposite direction.

18-20. (Canceled)

008573 USA/AGS/IBSS/HM
Application No: 10/726,008
Page 5 of 16

21. (Currently amended) A magnet assembly for a plasma process chamber comprising a wall, the magnet assembly comprising:

(a) a hollow collar comprising a radially internal and external surface, and a cross-section that is absent seams, the collar having a gap extending from about the radially internal surface to about the external surface, the gap defining opposing faces, at least one face having an open end face, and the collar sized to be capable of diametrically expanding and to snap fit a wall of the process chamber so that the radially internal surface directly contacts the process chamber wall;

(b) a cap to seal the at least one open end face;

(c) a plurality of magnets positioned in the hollow collar such that the magnetic axes of the magnets are oriented perpendicular to a wall of the process chamber; and

(d) a retaining ring to retain the hollow collar in the groove of the liner of the process chamber.

22. (Currently amended) A magnet assembly according to claim 21 further comprising a key on the an external surface of the hollow collar to couple to a corresponding slot on a the surface of the liner of the process chamber.

23. (Currently amended) A magnet assembly according to claim 21 wherein the plurality of magnets are positioned such that a first set of magnets have their magnetic axes oriented in one direction, and a the second set of magnets have their magnetic axes oriented in the opposite direction.

008573 USA/AGS/IBSS/HM
Application No: 10/726,008
Page 6 of 18

24. (Currently amended) A magnet assembly for a plasma process chamber comprising a wall, the magnet assembly comprising:

(a) a hollow collar comprising a radially internal and external surface, and a cross-section that is absent seams, the collar having a gap extending from about the radially internal surface to about the external surface, the gap defining opposing faces, at least one face having an open end face, and the collar sized to be capable of diametrically expanding and to snap fit a groove of a liner of the process chamber so that the radially internal surface directly contacts the liner;

(b) a cap to seal the at least one open end face;

(c) a plurality of magnets in the hollow collar that abut one another to generate an annular magnetic field about the process chamber, the magnets being positioned in the hollow collar such that their magnetic axes are oriented perpendicular to the [[a]] wall of the process chamber; and

(d) a key on the external surface of the hollow collar to couple to a corresponding slot on a the surface of the liner of the process chamber.

25. (Currently amended) A magnet assembly according to claim 24 wherein the plurality of magnets are positioned such that a first set of magnets have their magnetic axes oriented in one direction, and a the second set of magnets have their magnetic axes oriented in the opposite direction.

26. (Previously presented) A magnet assembly according to claim 25 further comprising a separator wall between the first and second sets of magnets.

008573 USA/AGS/IBSS/HM
Application No: 10/726,008
Page 7 of 16

27. (Currently amended) A liner assembly for a process chamber comprising a wall, the liner assembly comprising:
- (a) a liner having a groove; and
 - (b) a magnet assembly comprising:
 - (i) a hollow collar comprising a radially internal and external surface, and a cross-section that is absent seams, the collar having a gap extending from about the radially internal surface to about the external surface, the gap defining opposing faces, at least one face having an open end face, and the collar sized to be capable of diametrically expanding and to snap fit the groove of the liner so that the radially internal surface directly contacts the liner;
 - (ii) a cap to seal the at least one open end face; and
 - (iii) a plurality of magnets in the hollow collar, the magnets being insertable through the open end face.
28. (Previously presented) A magnet assembly according to claim 27 further comprising a retaining ring to retain the hollow collar in the groove of the liner.
29. (Currently amended) A magnet assembly for according to claim 27 further comprising a key on the an external surface of the hollow collar to couple to a corresponding slot on a the surface of the liner.
30. (Previously presented) A wall assembly for a process chamber, the wall assembly comprising a wall having a groove and the magnet assembly of claim 1 fitted to the groove.
31. (New) A magnet assembly according to claim 1 wherein the hollow collar comprises a single continuous curve extending at least about 180 degrees.
32. (New) A magnet assembly according to claim 21 wherein the hollow collar comprises a single continuous curve extending at least about 180 degrees.

008573 USA/AGS/IBSS/HM
Application No: 10/726,008
Page 8 of 16

33. (New) A magnet assembly according to claim 24 wherein the hollow collar comprises a single continuous curve extending at least about 180 degrees.

34. (New) A liner assembly according to claim 27 wherein the hollow collar comprises a single continuous curve extending at least about 180 degrees.